ANNUAL REPORT

OF THE

AUCKLAND INSTITUTE

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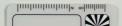
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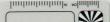
1910-1911.

ADOPTED AT THE ANNUAL MEETING HELD FEBRUARY 27th, 1911.

AUCKLAND: Wilson & Horton, General Printers, Queen and Wyndham Streets







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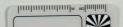
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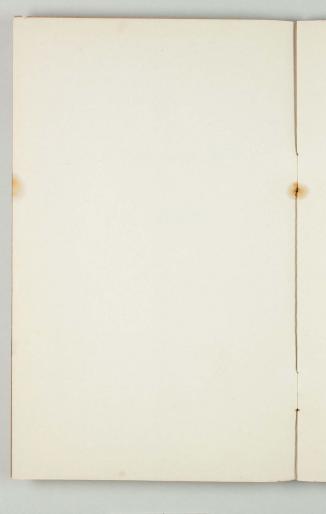
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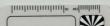
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OFFICERS

OF THE

AUCKLAND INSTITUTE.

President:

J. H. UPTON, Esq.

Vice-Presidents:

DR. R. BRIFFAULT.

PROF. C. W. EGERTON, M.A.

Council:

POND, J. A., F.C.S. BAGNALL, L. J. BROWN, PROF. F. D., M.A. REID, J.

MILLER, E. V. ROBERTON, E., M.D. PEACOCK, T. SEGAR, PROF. H. W., M.A. PETRIE, D., M.A. STEWART, J., C.E.

THOMAS, PROF. A. P. W., M.A., F.L.S.

Trustees:

BROWN, PROF. F. D., M.A. REID, J. PEACOCK, T. STEWART, J., C.E. UPTON, J. H.

Secretary and Curator:

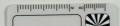
T. F. CHEESEMAN, F.L.S., F.Z.S.

Assistant and Preparator of Specimens:

L. T. GRIFFIN, F.Z.S.

Auditor:

S. GRAY.



The following

Periodicals and Publications of Societies

are subscribed to by the Institute:

NATURE.

THE PHILOSOPHICAL MAGAZINE.

THE AMERICAN JOURNAL OF SCIENCE.

AMERICAN CHEMICAL JOURNAL.

THE ELECTRICIAN.

THE PHYSICAL REVIEW.

ZEITSCHRIFT FUR PHYSIKALISCHE CHEMIE

ANNALEN DER PHYSIK.

COMPTES RENDUS DES SEANCES DE L'AQADEMIE DES SCIENCES.

ANNALS AND MAGAZINE OF NATURAL HISTORY.
QUARTERLY JOURNAL OF MICROSCOPICAL SCIENCE.

ANNALS OF BOTANY.

THE BOTANICAL GAZETTE.

ENGLER'S BOTANICAL YEAR BOOK

THE GARDENER'S CHRONICLE.

THE GEOLOGICAL MAGAZINE.
ZEITSCHRIFT DER DEUTSCHEN GEOLOGISCHEN GESELLSCHAFT.

COTTINGE BROOKERS

SCIENCE PROGRESS.

THE ECONOMIC JOURNAL.
THE LANCET.

MIND

TRANSACTIONS AND PROCEEDINGS OF THE ROYAL SOCIETY.
TRANSACTIONS AND PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.
THE ZOOLOGICAL RECORD.

PUBLICATIONS OF THE RAY SOCIETY.

JOURNAL OF THE CHEMICAL SOCIETY.

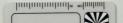
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY.

QUARTERLY JOURNAL OF THE GEOLOGICAL SOCIETY.

JOURNAL OF THE ROYAL AGRICULTURAL SOCIETY.

THE GEOGRAPHICAL JOURNAL.

REPORT OF THE BRITISH ASSOCIATION.



Report of the Council.

As provided for by the constitution of the Society, the Council have now to present to the members their Forty-third Annual Report on the financial and general condition of the Institute, and the progress it has made during the year.

MEMBERS.—It is satisfactory to announce that 32 new members have been elected since the date of the last annual meeting—a number considerably above the average. On the other hand, fourteen names have been removed from the roll—three from death, seven from resignation, and four from non-payment of subscription for more than two consecutive years. There is thus a net increase of 18, the total number on the roll at the present time being 204, of whom 12 are life members and 192 annual subscribers. The Council trust that the increase in the membership will be maintained in coming years. They would point out that the chief aim of the Institute—the maintenance of a free public Museum for the instruction and recreation of the people of Auckland—is one which appeals to all classes, and which should command a liberal amount of support.

FINANCE.—The detailed balance-sheets appended to the Report will make the financial position of the Institute intelligible to all who inspect them, but it may be useful to give a brief synopsis here. The total revenue credited to the Working Account, excluding the balance in hand at the commencement of the year, has been £1,170 11s. Last year the amount was £1,195 0s 9d, so that there has been a decrease of £24 9s 9d. Examining the chief heads of the balance-sheet, it will be seen that the receipts from the invested funds of the Costley Bequest have been £402 18s 8d, as against £386 15s for the previous year. The Museum Endowment has yielded £424 15s 2d, the amount for 1909-1910 being £502 8s; but the amounts for that period were swollen through the payment of some arrears of rent and interest which should have been credited during the previous twelve months. The members' subscriptions have realised £191 2s, showing an increase of £17 17s The total expenditure has been larger than usual, amounting to £1,283 9s, as against £1,209 11s 8d for 1909-10. The increase is principally due to three items-the enlarged expenditure over the library, caused by the publication of the library catalogue, presently to be referred to; the cost of certain show cases indispens ably required in the Museum; and some unavoidable repairs to

the roof and other portions of the building. The balance in hand at the present time amounts to £144 Is 11d. There are no changes of importance respecting the invested funds of the Institute, the total amount of which, £16,379 4s 5d, only very slightly exceeds that announced last year.

MEETINGS.—Nine meetings have been held during the year, at which the following lectures or papers were read:—

- 1. Halley's Comet.-By Prof. H. W. Segar.
- Presidential Address: The Nature of Life.—By Dr. R. Briffault.
- 3. Ferro-Concrete Structures.—By S. E. Lamb, B.Sc.
- 4. Wireless Telephony.—By A. WYLLIE, M.I.C.E.
- 5. The Ultra-microscope and What It Reveals.—By E. V $_{\mbox{\scriptsize MILLER}}$
- The Effects of the Disappearance of the New Zealand Bush
 —By Archdeacon Walsh.
- Huxley: A Criticism and an Appreciation.—By the Rev. D. D. Scott.
- 8. Maori Rock Engravings in the Kaipara District.—By R $_{\mbox{\scriptsize BUDDLE}.}$
- Maori Methods of Shark-fishing and Pigeon-snaring Fifty Years Ago.—By R. H. Matthews.
- The Economic Aspect of the Sugar Beet Industry in New Zealand.—By S. Gray.
- Descriptions of New Genera and Species of Coleoptera.— By Major T. Broun.
- 12. Additions to the Coleopterous Fauna of the Chatham Islands.—By Major T. Broun.
- 13. Descriptions of Some Native Phanerogams.—By D. Petrie, M.A.
- Contributions to a Knowledge of the New Zealand Flora, No. IV.—By T. F. Cheeseman, F.L.S.
 Some Recently-discovered Additions to the New Zealand
- Flora.—By T. F. Cheeseman.
- 16. On the Flora of the Mongonui County.—By H. Carse.
- The Relation of Scenery to Geology.—By Prof. E. W Skeats, D.Sc.

Most of the above papers have been forwarded to the New Zealand Institute, with the view of publication in the next volume of Transactions. Volume 42 of the Transactions, containing the papers read before the incorporated Societies during the year 1908, has been issued and distributed among the members. In last year's Report the Council hinted that it would probably be necessary to make temporary arrangements for holding the meetings outside the Museum Buildings in the future. The selection of a hall was by no means an easy task; but after full consideration it was decided to engage St. Andrew's Hall, in Symonds Street, for the purpose. On the whole, the choice has proved satisfactory, although it is much to be regretted that want of space should prevent the meetings from being held within the Institute's own buildings. The Council trust that this end may be achieved at no distant date.

MUSEUM.—With the exception of a few days required for cleaning and rearrangement, the Museum has been open to the public daily throughout the year. The hours of admission have been, as in former years, from 10 a.m. to 5 p.m. on week-days, and from 2 to 5 p.m. on Sundays. The register kept by the janitor on Sundays shows that 17,311 visitors entered the building on that day, being an average of 333 for each Sunday. The greatest attendance was 599 on July 31st, the smallest 65 on May 8. On the seven chief holidays of the year the number of visitors was 2993, or an average of 427. The number of visitors or ordinary week-days is certainly not less than 180, which would make a total of 55,080. Adding to this number the attendance on Sundays and holidays, we have 75,384 as the approximate total number of visitors during the whole year. This is only very slightly under the estimated attendance for the previous year, which was 75,957.

The progress made by the Museum during the year must be considered as satisfactory. Many important additions have been received, as will be seen from the appended list, and most of these have been placed on exhibition. Much time and labour have been devoted to the task of preparing and mounting the specimens intended for public view; and through the efforts of Mr. Griffin, who has charge of this branch of the Society's work, the general appearance of the collections, and their value for educational purposes, have been much enhanced.

In last year's Report it was stated that a commencement had been made in the formation of a collection of New Zealand food-fishes. This object has been kept steadily in view, and in order to obtain material special expeditions have been made to the Bay of Islands, the Great Barrier Island, and to various parts of the Hauraki Gulf. Altogether 6s specimens have been carefully mounted and painted from life, and it is intended to materially extend the collection during the coming autumn. Another novel addition consists in the preparation of a series of gelatine casts of the Tuatara lizard and other New Zealand Reptilia. This mode of reproducing a specimen has many advantages over plaster,

especially in the reduction of the number of piece moulds required, in the absence of fragility, and in its lightness and flexibility. If carefully painted from nature, such casts present a life-like appearance, not easy to attain in other material. Among other work performed during the year may be mentioned the complete rearrangement of the collection of New Zealand birds, and the addition thereto of several freshly-prepared specimens.

Other noteworthy additions are as follows:—A fine specimen of the rare Haast's Kiwi, obtained through the good offices of the Tourist Department; a very fair example of the White Crane, now nearly extinct in New Zealand, purchased from Mr. W. Townson; a specimen of Sula fuscas, shot at the Bay of Islands; and an example of the widely-spread water-snake Hydrus platurus, stranded on the ocean beach, west of Helensville. This last specimen came ashore alive, and was promptly forwarded to the Museum by the finder, Mr. E. Smith. Mention must also be made of three fine specimens of the Robber Crab (Birgus latro), obtained on Caroline Island, north of Tahiti, and presented by Mr. J. L. Young. These have been mounted so as to show the reclimbing habits of the species, a peculiarity hardly known in other forms of the Crustacea.

Another important addition consists of a large and varied collection of butterflies, presented by Mr. H. Dobbie. The greater portion of the collection was formed by Mr. Dobbie during a lengthened visit made to tropical South Africa a few years ago; another part consists of species forwarded by the British Museum to Mr. Dobbie in exchange for specimens from South Africa. To these have been added a considerable number of species obtained by the Museum from various sources during the last eight or ten years, including species from China, Indo-Malaya, New Guinea, etc. Few objects of natural history are more attractive than a good collection of butterflies, and Mr. Dobbie's collection is thus particularly welcome. It should be mentioned that the showcase in which the collection is displayed has been presented to the Museum by the subscriptions of a few members.

A considerable number of improvements have been made in the arrangement of the Maori collections. Among the objects which have been altogether rearranged are those which can be described as fishing materials, such as fish-hooks, fishing lines, fishing weights, nets, mussel dredges, eel-baskets, etc. The collection of cance balers has been remounted, as also a good series of bird snares, etc. Among the new additions the following may be particularised:—A large river cance, obtained by purchase in the Upper Thames district; two cance-memorials from the Lower

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Waikato; a series of carvings in pumice stone, found near the north end of Lake Rotochu, presented by Mr. V. J. Blake; two remarkable carvings in pumice, presented by Mr. W. J. Benner and Mr. J. Griffin respectively; a large and highly polished stone axe, found near Ngaruawahia, forwarded by Mr. H. Tarver; an elaborately carved step of a ko, or spade, some wooden flax-beaters, a carved fork, and various other articles, presented by Mr. G. Graham; a very interesting series of seventeen articles in greenstone, ordinary stone, and bone, purchased from Mr. W. Townson. Other donations are specified in the appendix.

In foreign ethnology by far the most valuable addition is a series of over 500 articles from Japan, including a few from China, deposited by Mr. H. S. Dadley. The collection includes many fine bronzes, swords, daggers, and other articles in metal; numerous carvings in wood and ivory; many varied specimens of pottery, porcelain, and cloisonne; specimens of lacquer-work; of silks embroidered with gold and silver; and other articles to numerous to mention. This collection is the result of Mr. Dadley's personal efforts during three visits to Japan, and the specimens have been carefully and judiciously selected. The Museum was so poorly supplied with ethnographical material from China and Japan that Mr. Dadley's deposit was a most welcome addition, and its presence in the Museum has attracted great numbers of visitors.

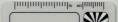
LIBRARY.—The Mackelvie Library Bequest has yielded its usual revenue during the year, and this, in compliance with the terms of the bequest, has been expended solely in the purchase of books. Two consignments have been obtained from London, numbering about 125 volumes, and a full list of these will be found in the appendix to the Report. In addition to the purchase of books, a large expenditure has been incurred in binding scientific journals, publications of societies, etc., about 85 volumes having been added to the Library from that source alone. The usual presentations and exchanges have been received from foreign societies, in addition to several donations from private individuals

In last year's Report it was stated that the Council had decided to proceed with the preparation of a printed catalogue of the Library. The work has been completed during the year, and copies of the catalogue can now be obtained from the Secretary at the price of five shillings each. The usefulness of the catalogue cannot be questioned; but so far the sale of copies has hardly equalled the anticipations of the Council. It should be mentioned that purchasers of the catalogue will be supplied each year with a printed list of additions to the Library.

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In concluding the Report, the Council have once more to thank the objects of the Society. They have also to express their gratification at the countenance and sympathy evinced by the general public, and particularly at the increasing number of donations to the Museum forwarded by country residents. In many respects the steady progress of the Institute and Museum is matter for congratulation. It is true that the slender means available will not permit of rapid or startling advances; but the Council can fairly claim that in carrying out the work of maintaining a free public Museum and scientific Library they are discharging a duty of no small importance, and one which entitles them to the sympathetic assistance of the whole community.





The Treasurer in Account with the Auckland Institute and Museum Trust Board.

WORKING ACCOUNT.

February 22, 1910, to February 22, 1911.

Special Subscriptions for Museum Purchases Linterest from Costley Bequest Rents and Interest transferred from Museum Endowment Account Linterest transferred from Mackechnie Library Bequest Account Linterest from Nathan Bequest Linterest from Life Subscription Account	256 19 11 191 2 0 21 3 0 402 18 8 424 15 2	Additions to Museum Museum Requisites Salaries Printing, Advertising, Insurance, Gas, Cleaning, Stationery, Postages, Miscellaneous Expenses Repairs to Buildings, Show-cases and Fittings Land Tax Life Subscriptions transferred to Savings Bank Hire of St. Andrew's Hall Type-writing Machine Miscellaneous Payments Balance in the Bank of New Zealand, February	196 2 6 47 10 0 52 12 9 669 8 8 158 1 8 90 13 11 36 12 6 10 10 0 7 10 0 12 3 0 2 4 0	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
c	1 497 10 11	C1	1 497 10 11	

T. F. CHEESEMAN, Treasurer.

Examined and found correct,

February 24, 1911.

W. GORRIE, Auditor.

The Treasurer in Account with the Auckland Institute and Museum Trust Board.

MUSEUM ENDOWMENT ACCOUNT.

February 22, 1910, to February 22, 1911.

Balance in the Bank of New 22, 1910 Rents of Endowments Interest on Investments	Zealand, Fe		£ s. 2 4 97 9 325 15	1 9	Transferred to Working Account 424 Bank Charges (Balance in Bank of New Zealand, February	s. 4 15 0 10	0
		£	425 9	0	£428	5 9	0

MACKECHNIE LIBRARY BEQUEST ACCOUNT.

February 22, 1910, to February 22, 1911.

Balance in the Bank of New Zealand, February 22, 1910	5 15 0	Bank Charges Balance in the Bank of New Zealand, February	0 :	10 10	0
		22, 1911	5	5	0
	£108 5 0	3	£108	5	0

T. F. CHEESEMAN, Treasurer.

Examined and found correct,

February 24, 1911.

W. GORRIE, Auditor.

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Investments of the Auckland Institute.

	£	S.	d.	£	s.	d.
1.—COSTLEY BEQUEST—						
On Mortgage on Freehold Security						
at 5½ per cent	4,000	0	0			
New Zealand Government 4 per cent.						
Debentures	1,900	0	0			
On Mortgage on Freehold Security		_				
at 5½ per cent	1,200	0	0			
On Mortgage on Freehold Security						
at 5½ per cent	500	0	0			
On Mortgage on Freehold Security	100					
at 5½ per cent	100	0	0	T 700	0	0
Invested in the of Manager	2,500	0	_	7,700	0	U
Invested in site of Museum		0	0			
Expended in Erection of Maori Hall	1,500					
Expended in Showcases and Fittings	450	U	U	4.450	0	0
			-	4,450	U	0
				12.150	0	0
II.—MUSEUM ENDOWMENT—						
On Mortgage at 5 per cent	1.300	0	0			
On Mortgage at 5 per cent	1,000	0	0			
On Mortgage at 5 per cent	650		0			
Auckland Gas Co. Debentures	600	0	0			
Dunedin Corporation 45 per cent.						
Debentures	1,000	0	0			
On Mortgage at 6 per cent	425	0	0			
On Mortgage at 5½ per cent	420	0	0			
On Mortgage at 6 per cent	400	0	0			
On Mortgage at 6 per cent	350	0	0			
On Deposit with Auckland Gas Co	200	0	0			
Waiting Investment	17	4	3			
		_	_	6,362	4	3
III.—MACKECHNIE LIBRARY BEQUEST—						
Harbour Board 4½ per cent. Debentures						
On Mortgage at 5½ per cent	500					
On Mortgage at 6 per cent	500	0	0			
TIT AT LOTTE AND DESCRIPTION	-	-	-	2,000	0	0
IV.—NATHAN BEQUEST—						
On Mortgage at 6 per cent				100	0	0
V.—LIFE SUBSCRIPTION ACCOUNT—						
On Mortgage at 6 per cent	150	0	0			
On Deposit in Auckland Savings Bank	67	0	0			
			_	217	0	0
					-	_
Total			3	€20,829	4	3
2 2					-	-
Proportion Bearing Interest			1	£16,379	4	3

T. F. CHEESEMAN, Treasurer.

Deeds for Securities and Receipts for Debentures lodged with Bank of New Zealand examined and found in order.

W. GORRIE, Auditor.

Form of Bequest.

I give and bequeath to the Institution known as the Auckland Institute and Museum the sum of \pounds free of succession or estate duty, to be applicable for the general purposes of such Institution. And I declare that the receipt of the Treasurer or the proper officer for the time being of such Institution shall be a sufficient discharge for the same.

Additions and Donations

TO THE

Library and Museum.

Parliamentary Papers and Reports; New Zealand Hansard for 1919; New Zealand Official Year Book; Annual Report and other Publications of the Department of Agriculture; New Zealand Statistics and other Statistical Returns :- The New Zealand Government

Transactions of the New Zealand Institute, Vol 42; Proceedings of the Institute for 1909-1910; Bulletins Nos. 1 and 2:—The New Zealand Institute.

Bulletins 9, 10, and 11 of the Geological Survey:-The Director of the Geological Survey.

Journal of the Polynesian Society, parts of Vols. 18 and 19:- The Society.

Report of the Dominion Laboratory for 1909:-The Laboratory.

Journal of the Linnean Society of New South Wales, parts of Vols. 34 and 35 :- The Society.

Annual Report of the New South Wales Fishery Board; Stead's Review of the Fisheries of New South Wales:—The Fishery Board of New South

Journal of the Royal Society of New South Wales, Vols. 42, 43, part 44:-The Society.

Records of the Australian Museums, parts of Vol. 8:-The Museum.

Proceedings of the Australasian Association, Vol 12:- The Association,

Transactions of the Royal Society of Victoria, parts of Vol. 5:-The Society. Memoirs of the National Museum, Melbourne, part 3:-The Museum.

The Australian Naturalist for 1909-1910 :- The Editor.

Transactions and Proceedings of the Royal Society of South Australia, Vols. 33 and 34:—The Society.

Transactions of the Royal Society of Queensland for 1909-1910:-The Society. Bulletins of the Commonwealth Bureau of Meteorology, Nos. 1-5:-The

United States Consular Reports:-The Secretary of State, United States.

Ainsile's Cowpea Curculio; Foster's Nut-feeding Habits of the Codilin Moth; Quantance's San Jose Scale and its Control; Wildermuth's Clover-root Curculio; Phillips' Bees; Snodgrass' Anatomy of the Honey Bee; Parker's Hop-flea Beetle; Dean's Sorghum Midge; Morgan's Control of Tobacco Insects; Vickery's Corn-root Aphis; Hysboy's Smoky Crane-fly; Marsh's Yellow-bear Caterpillar; Johnston and Hammar's Grape Root-worm; Cooke's Migration of North American Shore Birds; Hopkin's Contributions to a Monograph of Pissodes; Lantz's Raising Deer and other Large Animals in the United States; Quantance's One-spray Method; Hammar's Life History of the Codlin Moth in Pennsylvania;

Chittenden's Oak Pruner; Chittenden's Cucumber Beetles; Snyder's Damage to Telegraph Poles by Wood-boring Insects; Foster's Control of the Pear Thrips; North American Fauna, No. 31; Various Reports and Circulars:—The Department of Agriculture, U.S.A.

Report of the United States National Museum for 1909; Proceedings of the United States National Museum, Vol 36; Various Bulletins; Contributions to the U.S. National Herbarium, parts of Vols. 13 and 14; Publications of the U.S. Bureau of Ethnology:—The Smithsonian Institution. Publications of the University of California, Anthropology and Botany:-

The University.

Publications of the Bishop Museum, Honolulu:-The Museum.

Annals of the Observatory of Harvard College, various parts:-The

Observatory.

Observatory.

Report of the Geological Survey of Canada; Maps of Canada's Northland; Ell's Report on the Oil Shales of New Brunswick and Nova Scotia; Camsell's Geology and Ore Deposits of the Hedley Mining District; Adams' and Bardow's Geology of Haliburton and Bancroft; Report on Conrad and Whitelonse Mining District; Dresser's Discovery of Gold at Megantic; Camsell's Report on the Similkameen District; Collina' Geological Recomaissance between Lake Nijigon and Clay Lake; Wait's Struction of Electric Furnaces; Various Miner Reports:—The Geological Survey of Canada. Survey of Canada

Publications of the Philippine Weather Bureau for 1909-1910 :- The Bureau. Journal of the Royal Colonial Institute, Vol 41:-The Institute.

The Museums' Journal for 1909-1910: -The Museums' Association.

Symon's Monthly Meteorological Magazine:-The Editor.

Icones Plantarum, parts of Vol. 10; Kew Bulletin for 1910:-The Director, Kew

Guide to the Collections of the Dublin Museum of Science and Art, various parts :- The Museum. Annals of the Royal Observatory of Edinburgh, Vol. 3:- The Observatory.

Lockyer's Surface Air Circulation in the Southern Hemisphere:-The Solar Physics Observatory Hornell's Report on the Marine Zoology of Okhamandal:-J. Hornell.

Durning-Lawrence's Bacon is Shakespear :- The Author.

A Library of Peace and War:-The Publishers.

Bucknill's Ornithology of Cyprus:-The Author

Publications of the Deutsche Seewarte:-The Seewarte.

Garstin's Report on the Basins of the Upper Nile:-Professor F. D. Brown. Pitt Rivers' Antique Works of Art from Great Benin; Guide to the Early Printed Books, etc., in the Auckland Public Library:—H. Shaw.

Matthew Fowlds and other Fenwick Worthies:-Hon. G. Fowlds.

Hawaiki, the Whence of the Maori, 3rd edition; History of the Wars of the Maoris in the North; Various Pamphlets:—S. Percy Smith.

Old New Zealand Government Gazettes; Old Auckland Newspapers; Old New South Wales Newspapers, 1840-1843; Illustration of Native Meeting at Remuera, 1844; Various Other Papers: R. Hall.

Bay of Islands Observer for October 6, 1842:-Miss Hargreaves. Two Water-colour Drawings of Early Auckland:-H. Arden.

Water-colour Drawing of Queen Street, Auckland, in 1853:- J Graham.

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BOOKS PURCHASED.

Borcher's Electric Furnaces. Garrett's Periodic Law Combarieu's Music. Edridge Green's Colour Blindness. McEwan's Guide to the Starry Heavens. Winkler's Technical Gas Analysis. Tutton's Crystalline Structure. Armstrong's Simple Carbohydrates. Alembic Club Reprints, Nos. 1 to 16. Desch's Metallography Lowell's Evolution of Worlds Lockyer's Meteoric Hypothesis. Wheeler's Ants. Crawshay's Birds of Tierra del Fuego. Clarke's Illustrations of Cyperaceæ. Hall's Fertilisers and Manures. Hall's The Soil. Willis' Agriculture in the Tropics. Ellis' Outlines of Bacteriology Green's History of Botany, 1860-1900. Church's Types of Floral Mechanism. Boyce's Mosquito or Man. Horn Expedition to Central Australia, 4 vols. Frazer's Totemism of Exogamy, 4 vols. Budge's Book of the Dead, 3 vols Maiden's Life of Sir Joseph Banks Marshall's Consciousness Nicholson's A Project of Empire Lodge's Survival of Man. Jones' Working Faith of the Social Reformer. Whetham's Family and the Nation Greenwood's Physiology of the Special Senses. Smith's The Stone Ages. Ball's The Earth's Beginnings. Blake's Sixty Years in New Zealand. Ladd's Knowledge, Life, and Reality Maspero's New Light on Ancient Egypt. Loeb's Comparative Physiology of the Brain. Idding's Igneous Rocks, Vol. 1. Hertwig's Embryology.

Marks and Davis' Saturated and Superheated Steam. Muret-Sander's Encyclopædic Dictionary of English and German, 4 vols. Heale's New Zealand and the New Zealand Company. Taylor's Te Ika a Maui.

G. H. Darwin's Scientific Papers, Vol. 3.

Freund's Study of Chemical Composition.

Shaw's Air Currents and Ventilation.

Campbell's Modern Electrical Theory.

Fron's Sylviculture.

Ward's Naturalism and Agnosticism, 2 vols.

Alder and Hancock's British Nudifranchiate Mollusca, Supplementary Volume.

Allcroft's Earthworks in England Clark's Essentials of Economic Theory.

Beadnell's An Egyptian Oasis.

Shadwell's Industrial Efficiency.

Arrhenius' Life of the Universe, 2 vols.

Lodge's The Ether of Space.

Warming's Œcology of Plants. White's Sikhim and Bhutan

Hedin's Trans-Himalaya, 2 vols.

James' A Pluralistic Universe.

Minot's Age, Growth, and Death Soddy's Interpretation of Radium.

Beddard's A Book of Whales.

Haddon's The Study of Man.

Clinton-Baker's Illustrations of Conifers, 2 vols.

Hertz's Miscellaneous Papers. McDougal's Social Psychology

Mill's Siege of the South Pole

Crooke's Select Methods in Chemical Analysis.

Ostwald's Fundamental Principles of Chemistry.

Beveridge's Employment. Scott's Fossil Botany

Mellor's Higher Mathematics.

Wanhill and Beveridge's Handbook of Practical Hygiene, Harker's History of Igneous Rocks.

Joly's Radioactivity and Geology

Darwin's Foundations of the Origin of Species.

Thomson's Conduction of Electricity Through Gases, 2nd edition.

Bateson's Mendel's Principles of Heredity

Seward's Darwin and Modern Science

Silvanus Thompson's Life of Lord Kelvin, 2 vols.
First and Second Appendices to Dana's Mineralogy.
Farmer's The Book of Nature, 6 vols.
Lloyd Morgan's Habit and Instinct.

United States Geological Survey Report on the Earthquake of San Francisco.

Skin of Apteryx Haasti: - The Tourist Department, per L. Birks.

Apteryx Mantelli :-- L. Birks.

Skin of Long-tailed Cuckoo (Endynamis taitensis) :- J. Reilly.

Maori Skull :- Dr. Hallin.

White Crane (Ardea egretta): - Purchased.

New Zealand Lamprey:—A. V. Pittman.

Sucking Fish (Echineis remora) :- W. Hodgson.

Kathetostoma laeve :- A. Goodwin.

Pipe Fish:-F. Bell.

Naultinus punctatus:-J. Poananga

Sea-snake (Hydrus platurus) stranded near Helensville: -E. Smith.

New Zealand Frog, several specimens:—A. C. Jameson.

Naultinus punctatus:-Allan Bell.

Gymnoplectron longipes :- R. H. Wynyard.

Large Centipede :- A. Morrison ; E. Marchant.

Clitarchus Hookeri:-V. J. Blake.

 $Hepialus\ virescens$; perfect insect, chrysalis, and larva: -W. Satchell.

Large Collection of Butterflies from South Africa and other countries:— H. Dobbie.

Stalked Barnacles from Raglan:-T. B. Hill.

Three Robber Crabs from Caroline Island, near Tahiti:--J. L. Young

Palinurus sp., from Great Barrier Island:-H. Osborne.

Moa Bones from Kawhia:-A. W. Babbage.

Siliceous Mineral from Hape Creek, Thames:-W. R. Martin.

Porcellanites from Mt. Eden :- G. Winstone.

Teeth of Carcharodon Megalodon and other Fossils :- G. A. Clark.

Encrustation from a Bore-hole at Kotuku, Westland:-Miss Peterson.

Six Ammonites from Marikopa, Kawhia:—S. H. Carr.

Curious Outgrowth from a Kauri Tree:—R. Cranwell.

Samples of Taranaki Petroleum and bye-products:—Taranaki Petroleum Co. Several Bone Hafts of Fish-hooks; Stone Hafts of Fish-hooks; Bone Back of Pawa-shell Hook; various other Maori articles:—Mrs. Hallyburton Johnstone

Carved Human Figure in Pumice, found at Paengaroa, Bay of Plenty:— W. J. Benner.

Three Fishing Weights found near Flat Head, Mongonui:-W. Garton.

Stone Hafts for Fish-hooks, found near Oeo, Taranaki:—Miss Fanny Good. Large and Highly-polished Stone Axe, found near Ngaruawahia:—H. Tarver. Carved Feather Box, found in a cave at Mangapohue, Kawhia:—P. Ross. Small Greenstone Chisel and Ear-drop; Maori Grindstone: J. Anderson,

Handle of Kumara Spade (?), found in a swamp at Otorohanga:—F. Hull. Several Pumice-stone Carvings, found at the north end of Lake Rotoehu:— V. J. Blake.

Remarkable Stone Carving :- Purchased

Old Maori Ko and Wooden Implement found in the bed of a stream at Paeroa:—J. Hubbard.

Three Maori Spades and Two Kumara Weeders, found in a ditch at Whangaparapara:—D. N. McMillan.

Two Wooden Flax Beaters; Carved Fork, Carved Step of Spade: +G. Graham. Stone Anchor for a Canoe: -R. Buddle.

Carved Human Figure in Pumice, found at Onewhero, Waikato:—J. Griffin. Large River Canoe from Thames River:—Purchased.

Stone Axes:-R. Condron.

Stone Bowl, Grindstone, Stone Axes; Two Bone Toggles; One Aurei:—C. Curtis.

Cast of Carved Funnel:-A. Hamilton, Dominion Museum.

Seventeen Articles in Greenstone, ordinary stone, and bone:—Purchased. Large Greenstone Matau:—Purchased.

Bowl and Dish from Inca Burial Ground, near Lake Titicaca; Human Fetus, found in same grave; Charm, Spoon, and other articles found in the same district; Ancient Spanish Dagger and Axe found near Mollendo, Peru; 13 silver coins:—James Banner.

Series of over 500 Articles, mostly from Japan, but a few from China; including Bronzes, Swords, Daggers, and other articles in metal: numerous carvings in wood and ivory; many specimens of Pottery, Porcelain, and Cloisonné Work; Lacquer Work; Silks embroidered with Gold, etc., etc.—Deposited by Mr. H. Dadley.

Australian Stone Axes; Stone Axes found in Norfolk:-G. A. Clark.

Military Buttons found in Albert Park:—C. Holland.

Model of H.M.S. Victory, made by L. R. Hardy: - Deposited by Mrs. Hardy.

List of Members

For the Year ending March 31st, 1911.

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